



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: 2000 Constitution Avenue, NW, Washington, DC 20543
Phone: (800) 786-9899
Fax: (202) 293-4400
www.uspto.gov

APPLICATION NO.	FILED DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,629	02/28/2003	Atsushi Matsunaga	13006-077	2515

Fildes & Outland
Suite 2
20916 Mack Avenue
Grosse Pointe Woods, MI 48236

EXAMINER

JUSKA, CHERYL ANN

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 05/07/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.

Applicant(s)

09 720,629

MATSUNAGA ET AL

Office Action Summary

Examiner

Art Unit

Cheryl Juska

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other

DETAILED ACTION

Response to Amendment

1. Amendment A, submitted as Paper No. 6 on February 25, 2003, has been entered. Claims 1-13 have been cancelled, while new claims 14-22 have been added.
2. The cancellation of claims 1-13 renders moot the claim objections and rejections set forth in the last Office Action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 14 and 16 are indefinite because it is unclear if both the high melting point polymer and the low melting point polymer are polylactic acid based.
6. Claims 15, 17-19, and 20 are indefinite because it is unclear if said binder resin is the low melt polymer or the single phase polymer or if it is an additional polymer employed as a binder.

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit 1771

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 14-21 are rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over EP 765 959 issued to Nagaoka et al.

Nagaoka discloses a nonwoven fabric made of polylactic acid (PLA) filaments (abstract and claim 1). The filament has a crystallization degree of 7-40% (claim 23). The filaments may be either solid or hollow (Figure 1) and have a round (Figures 1, 4, and 6) or lobal cross-sectional area (Figures 2, 3, and 5). Additionally, the filament may be a monocomponent or bicomponent fiber comprised of two polymers with a difference in melting point of about 20 degrees (page 5, lines 9-24 and Figures 4-6). In another embodiment, the nonwoven is comprised of a blend of PLA filaments (page 10, lines 1-6). The nonwoven is bonded by partially bonded the filaments together by heat and pressure (i.e., point bond embossing) or one side of said nonwoven is bonded via a heated calender roll or Yankee dryer (claim 2, page 9, line 55-page 10, line 8, and page 13, lines 8-12). Either method will inherently melt at least some of the low melting point PLA polymer or the single phase PLA polymer. As such, said melted polymer will inherently act as a resin to bind the filaments at their cross-over points. Furthermore, Nagaoka teaches the nonwoven has low shrinkage of preferably not more than 2% (page 11, lines 51-56).

Art Unit: 1771

Thus, it can be seen that Nagaoka anticipates applicant's claims with the exception of the presently claimed birefringence and specific heat shrinkage value. However, it is reasonable to presume that the invention of Nagaoka inherently possesses said birefringence and heat shrinkage. Support for said presumption is found in the use of like materials (i.e., PLA filaments with the claimed crystallization degree) and the use of like processes (i.e., nonwoven with bonding by means of heat and pressure). The burden is upon applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the presently claimed properties of birefringence and heat shrinkage would obviously have been present once the Nagaoka nonwoven is provided. *In re Best*, 195 USPQ 433. Therefore, claims 14-21 are rejected as being anticipated by or obvious over the cited prior art.

Claim Rejections - 35 USC § 103

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Nagaoka reference in view of EP 597 427 issued to Taniguchi et al.

Although Nagaoka does not explicitly teach a tufting the inventive nonwoven fabric to make a carpet, it is well known in the art to employ nonwoven fabrics as primary backings for tufted carpets. Applicant is hereby given Official Notice of this fact. Additionally, it is known in the art to employ biodegradable nonwovens for carpets so that said carpet will degrade when buried in a landfill. See Taniguchi, page 2, lines 16-26. Thus, it would have been obvious to one of ordinary skill in the art to employ the biodegradable nonwoven of Nagaoka for a primary carpet backing as is known in the art and evidenced by Taniguchi. Motivation to do so would be

Art Unit: 1771

to expand the number of applications of the Nagaoka nonwoven and to make waste carpet more environmentally friendly. Therefore, claim 22 is rejected as being obvious over the prior art.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the

Art Unit: 1771

organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



CHERYL J. JISKA
PRINTER

cj
May 5, 2003